

# GANGWAYS AND PARAPETS FOR WATER WORKS

## LOCATION

Filtration and water treatment plant. There are 29 water works plants distributed in the Milan area. They are real "water factories" where potable water is produced. The process is made in a continuous cycle so all parts as the engine room, the pumps, activated carbon filters, the accumulation tanks and the water supply wells must continuously keep on working.

## CLIENT

Monutility that manages the water service and the public control of the corporate members.

<b>LOCATION</b>	<b>MILAN (ITALY)</b>
<b>USE</b>	<b>GANGWAYS AND PARAPETS</b>
<b>PRODUCT</b>	<b>GRATINGS TYPE SCH 38/38_IFR, PULTRUDED PROFILES</b>



## OBJECTIVE

The signs of decay and the corrosion of the standard metal structures were conditions that had to be solved because the particular environment needed to be non-contaminated: it's an area where reverse osmosis takes place, where there are activated carbon fibers and oxidation systems. Considering that this water treatment plant is the Milan's most important (over 2/3 of the total production), the structure replacements had to be made with no production shutdown and had to be adaptable to prior installations and pipes. Materials had to be resistant to environmental conditions, installation and servicing costs had to be reduced.

## SOLUTION

M.M. has designed the new structures and their installation sequence according to the UNI EN ISO 14122 - 1,2,3,4 norm. This allowed to install the structures without interfering with the filtration activity and adapting them to the existing pipe blocks. They have been prefabricated and preassembled in order to reduce down to the bare minimum all the work on site. Structures have been built with composite pultruded profiles and isophthalic resin gratings type SCH 38/38\_IFR. Particular attention has been paid to the stress resistance, to the environmental aggressive conditions and the safety aspect (yellow color of the parapets). Due to the dielectric property of M.M. gratings, they are considered excellent insulators according to the EN 61340-2-3 and IEC 61340-4-5 norms of the electric field.